

| Mean, medium, Mode and Range Mark Scheme |                                                                                                                                                                        |                                                                                                          |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>1</b>                                 | Mode = 8                                                                                                                                                               | [1]                                                                                                      |
|                                          | Median = 8                                                                                                                                                             | [1]                                                                                                      |
|                                          | Mean = 8.8                                                                                                                                                             | [1] Answer must be to 1 d.p.                                                                             |
|                                          | Range = 19                                                                                                                                                             | [1]                                                                                                      |
| <b>2</b>                                 | $2 \times 6 \text{ kg} + 2 \times 16 \text{ kg} = 44, \quad \frac{44}{4} \neq 12$<br>$3 \times 6 \text{ kg} + 2 \times 16 \text{ kg} = 50, \quad \frac{50}{5} \neq 12$ | [1] Using trial and improvement<br>e.g. $2 \times 6 \text{ kg} + 1 \times 16 \text{ kg} = 28 \text{ kg}$ |
|                                          | $2 \times 6 \text{ kg} + 3 \times 16 \text{ kg} = 60 \text{ kg}, \quad \frac{60}{5} = 12 \text{ kg}$                                                                   | [1] Correct calculation                                                                                  |
|                                          | Two 6 kg bags and three 16 kg bags.                                                                                                                                    | [1]                                                                                                      |
| <b>3 (a)</b>                             | Median = 1.5 kg                                                                                                                                                        | [1] Answer must be to 1 d.p.                                                                             |
|                                          | Mean = $10.8 \div 7 = 1.5 \text{ kg}$                                                                                                                                  | [1] Answer must be to 1 d.p.                                                                             |
|                                          | Mode = 1.3 kg                                                                                                                                                          | [1] Answer must be to 1 d.p.                                                                             |
|                                          | Range = 0.9 kg                                                                                                                                                         | [1] Answer must be to 1 d.p.                                                                             |
| <b>3(b)</b>                              | Total weight of seven rabbits = 10.8 kg                                                                                                                                | [1] Finding total weight                                                                                 |
|                                          | $5 \times 1.6 \text{ kg} = 8 \text{ kg}$                                                                                                                               | [1] Finding remaining weight                                                                             |
|                                          | Total weight of two removed rabbits = $10.8 - 8 = 2.8 \text{ kg}$                                                                                                      | [1] Full marks for 2.8 kg                                                                                |
| <b>4</b>                                 | Mean pay = $50.64 \div 6 = \text{£}8.44$                                                                                                                               | [1]                                                                                                      |
|                                          | Median = £8.46                                                                                                                                                         | [1]                                                                                                      |
|                                          | Mode = £8.48                                                                                                                                                           | [1]                                                                                                      |
|                                          | Yes, the mean, median and mode suggest that Sarah is correct to think that most of her friends are paid more.                                                          | [1] Suitable explanation                                                                                 |
| <b>5(a)</b>                              | 3, 3, 3, 3, 4, 4, 5, 6, 7, 7, 7                                                                                                                                        | [1] Correct values from graph                                                                            |
|                                          | $\frac{3 + 3 + 3 + 3 + 4 + 4 + 5 + 6 + 7 + 7}{10}$                                                                                                                     | [1] Correct calculation                                                                                  |
|                                          | Mean = 4.5 minutes                                                                                                                                                     | [1] Final answer                                                                                         |
| <b>5(b)</b>                              | Range = 4 minutes                                                                                                                                                      | [1]                                                                                                      |
| <b>6(a)</b>                              | 5, 7, 9                                                                                                                                                                | [3] 1 mark for each                                                                                      |
| <b>6(b)</b>                              | Card number 6                                                                                                                                                          | [1]                                                                                                      |
|                                          |                                                                                                                                                                        |                                                                                                          |

END